

Listing of Claims

1. (Currently Amended) A packet transmission method in a network switch, comprising:
receiving a packet;
determining if a destination MAC address of the packet is in a MAC table;
determining if the destination MAC address of the packet is in a management table, if
the destination MAC address of the packet is not registered in the MAC table; and
discarding the packet if the destination MAC address of the packet is registered in the
management table, said method further comprising managing registration of information in the
management and MAC tables, said managing including:
detecting failure of a host of the MAC address;
updating the MAC table to nullify registration of the MAC address based on detection
of said failure; and
updating the management table to activate registration of the MAC address, said
updating preventing redundant registration of the MAC address in the MAC and management
tables.
2. (Currently Amended) The packet transmission method according to claim 1, further
comprising transmitting the packet to a host corresponding to the destination MAC address of the
packet if the destination MAC address of the packet is registered in the MAC table.

3. (Currently Amended) The packet transmission method according to claim 1, further comprising broadcasting the packet to a network if the destination MAC address of the packet is not registered in either of the management table or the MAC table.

4. (Original) A host management method in a network switch, comprising:
receiving a registration request for registering a host in a MAC table;
registering a MAC address of the host into the MAC table;
determining if the host become inaccessible; and
transferring the MAC address of the host registered in the MAC table to a management table if the host becomes inaccessible.

5. (Original) The host management method according to claim 4, wherein the host is inaccessible if the host fails.

6. (Original) The host management method according to claim 4, wherein transferring the registered MAC address of an inaccessible host to the management table comprises:

removing the registered MAC address from the MAC table; and
registering the removed MAC address in the management table.

7. (Original) The host management method according to claim 4, further comprising transferring the MAC address registered in the management table to the MAC table if the host becomes accessible.
8. (Original) The host management method according to claim 7, wherein transferring the registered MAC address of an accessible host to the MAC table comprises:
removing the registered MAC address from the management table; and
registering the removed MAC address in the MAC table.
9. (Original) The host management method according to claim 4, further comprising monitoring a status of the host.
10. (Original) The host management method according to claim 9, further comprising transferring the MAC address of the host registered in the MAC table to the management table if the status of the host indicates the host is inaccessible.
11. (Original) The host management method according to claim 10, further comprising transferring the MAC address of the host registered in the management table to the MAC table if the status of the host indicates the host is accessible.

12. (Currently Amended) A packet transmission method for transmitting a packet from a network switch to a host comprising:

managing registration of information in a MAC table and a management table of the switch, said managing including preventing the MAC table and management table from storing redundant registration information for each of a plurality of MAC addresses;

inputting a packet in the network switch for transmission, the packet adapted to be transmitted to a host;

checking a registration status of the MAC address of the input packet in the MAC table and the management table; and

discarding the packet if the a MAC address of the host has a first registration status in the MAC table and a second registration status different from the first registration status is registered in the a management table because of inaccessibility of the host.

13. (Currently Amended) A network management method, comprising:

- receiving a registration request from a remote device;
- determining if the remote device is registered in a first table;
- adding an address for the remote device to the first table if the remote device is not in the first table;
- monitoring a status of the remote device;
- receiving a packet for transmission to the remote device; and

preventing transmission of the packet to the remote device if the status of the remote devices indicates the remote device is inaccessible, said method further comprising:

changing a registration status of the remote device to a first status in the first table if the monitored status of the remote device indicates that the remote device is inaccessible; and
changing a registration status of the remote device to a second status different from the first status in a second table if the status indicates the remote device is inaccessible,
wherein the first table controls transmission of the packet to the remote device and the second table controls blocking transmission of the packet to the remote device.

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Currently Amended) The method of claim 13 [[16]], further comprising
changing the registration status of removing the address for the remote device to
the first status in from the second table and changing the registration status of adding the
address for the remote device to the second status in to the first table if the status of the remote
device indicates the remote device is accessible again.

18. (Currently Amended) The method of claim 13 [[16]], further comprising monitoring the status of the remote device continuously.
19. (Currently Amended) The method of claim 13 [[16]], further comprising monitoring the status of the remote device when the packet is received.
20. (Currently Amended) The method of claim 13 [[16]], further comprising monitoring the status of the remote device when a registration request is received.
21. (New) The packet transmission method according to claim 1, further comprising:
detecting existence of an error in the network switch based on a status of registration of the MAC address in the MAC table and the management table.
22. (New) The method of claim 12, wherein the first registration status indicates that the MAC address of the host is not registered in the MAC table.
23. (New) The method of claim 12, further comprising:
detecting existence of an error in the network switch based on the first registration status and the second registration status of the MAC address in the MAC table and management table respectively.